

SEQUENCE LISTING

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<120> GROWTH ARREST SPECIFIC GENE 6 PEPTIDES, ANTIBODIES,
COMPOSITIONS,
METHODS AND USES

<130> US 60/413250

<140> CEN-5014USNP

<141> 2003-09-24

<150> 60/413250

<151> 2002-09-24

<160> 38

<170> PatentIn version 3.2

<210> 1

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<212> PRT

<213> Homo sapiens

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Met Ala Pro Ser Leu Ser Pro Gly Pro Ala Ala Leu Arg Arg Ala Pro

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Gln Leu Leu Leu Leu Leu Ala Ala Glu Cys Ala Leu Ala Ala Leu

20 25 30

Leu Pro Ala Arg Glu Ala Thr Gln Phe Leu Arg Pro Arg Gln Arg Arg
35 40 45

Ala Phe Gln Val Phe Glu Glu Ala Lys Gln Gly His Leu Glu Arg Glu
50 55 60

Cys Val Glu Glu Leu Cys Ser Arg Glu Glu Ala Arg Glu Val Phe Glu
65 70 75 80

Asn Asp Pro Glu Thr Asp Tyr Phe Tyr Pro Arg Tyr Leu Asp Cys Ile
85 90 95

Asn Lys Tyr Gly Ser Pro Tyr Thr Lys Asn Ser Gly Phe Ala Thr Cys
100 105 110

Val Gln Asn Leu Pro Asp Gln Cys Thr Pro Asn Pro Cys Asp Arg Lys
115 120 125

Gly Thr Gln Ala Cys Gln Asp Leu Met Gly Asn Phe Phe Cys Leu Cys
130 135 140

Lys Ala Gly Trp Gly Gly Arg Leu Cys Asp Lys Asp Val Asn Glu Cys
145 150 155 160

Ser Gln Glu Asn Gly Gly Cys Leu Gln Ile Cys His Asn Lys Pro Gly
165 170 175

Ser Phe His Cys Ser Cys His Ser Gly Phe Glu Leu Ser Ser Asp Gly
180 185 190

Arg Thr Cys Gln Asp Ile Asp Glu Cys Ala Asp Ser Glu Ala Cys Gly
195 200 205

Glu Ala Arg Cys Lys Asn Leu Pro Gly Ser Tyr Ser Cys Leu Cys Asp
210 215 220

Glu Gly Phe Ala Tyr Ser Ser Gln Glu Lys Ala Cys Arg Asp Val Asp
225 230 235 240

Glu Cys Leu Gln Gly Arg Cys Glu Gln Val Cys Val Asn Ser Pro Gly
245 250 255

Ser Tyr Thr Cys His Cys Asp Gly Arg Gly Gly Leu Lys Leu Ser Gln
260 265 270

Asp Met Asp Thr Cys Glu Asp Ile Leu Pro Cys Val Pro Phe Ser Val
275 280 285

Ala Lys Ser Val Lys Ser Leu Tyr Leu Gly Arg Met Phe Ser Gly Thr
290 295 300

Pro Val Ile Arg Leu Arg Phe Lys Arg Leu Gln Pro Thr Arg Leu Val
305 310 315 320

Ala Glu Phe Asp Phe Arg Thr Phe Asp Pro Glu Gly Ile Leu Leu Phe

325 330 335

Ala Gly Gly His Gln Asp Ser Thr Trp Ile Val Leu Ala Leu Arg Ala

340 345 350

Gly Arg Leu Glu Leu Gln Leu Arg Tyr Asn Gly Val Gly Arg Val Thr

355 360 365

Ser Ser Gly Pro Val Ile Asn His Gly Met Trp Gln Thr Ile Ser Val

370 375 380

Glu Glu Leu Ala Arg Asn Leu Val Ile Lys Val Asn Arg Asp Ala Val

385 390 395 400

Met Lys Ile Ala Val Ala Gly Asp Leu Phe Gln Pro Glu Arg Gly Leu

405 410 415

Tyr His Leu Asn Leu Thr Val Gly Gly Ile Pro Phe His Glu Lys Asp

420 425 430

Leu Val Gln Pro Ile Asn Pro Arg Leu Asp Gly Cys Met Arg Ser Trp

435 440 445

Asn Trp Leu Asn Gly Glu Asp Thr Thr Ile Gln Glu Thr Val Lys Val

450 455 460

Asn Thr Arg Met Gln Cys Phe Ser Val Thr Glu Arg Gly Ser Phe Tyr

465 470 475 480

Pro Gly Ser Gly Phe Ala Phe Tyr Ser Leu Asp Tyr Met Arg Thr Pro
485 490 495

Leu Asp Val Gly Thr Glu Ser Thr Trp Glu Val Glu Val Val Ala His
500 505 510

Ile Arg Pro Ala Ala Asp Thr Gly Val Leu Phe Ala Leu Trp Ala Pro
515 520 525

Asp Leu Arg Ala Val Pro Leu Ser Val Ala Leu Val Asp Tyr His Ser
530 535 540

Thr Lys Lys Leu Lys Lys Gln Leu Val Val Leu Ala Val Glu His Thr
545 550 555 560

Ala Leu Ala Leu Met Glu Ile Lys Val Cys Asp Gly Gln Glu His Val
565 570 575

Val Thr Val Ser Leu Arg Asp Gly Glu Ala Thr Leu Glu Val Asp Gly
580 585 590

Thr Arg Gly Gln Ser Glu Val Ser Ala Ala Gln Leu Gln Glu Arg Leu
595 600 605

Ala Val Leu Glu Arg His Leu Arg Ser Pro Val Leu Thr Phe Ala Gly
610 615 620

Gly Leu Pro Asp Val Pro Val Thr Ser Ala Pro Val Thr Ala Phe Tyr
625 630 635 640

Arg Gly Cys Met Thr Leu Glu Val Asn Arg Arg Leu Leu Asp Leu Asp
 645 650 655

Glu Ala Ala Tyr Lys His Ser Asp Ile Thr Ala His Ser Cys Pro Pro
 660 665 670

Val Glu Pro Ala Ala Ala
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Val Pro Phe Ser Val Ala Lys Ser Val Lys Ser Leu Tyr Leu Gly
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Leu Arg Phe Lys Arg Leu Gln Pro Thr Arg Leu Val Ala Glu Phe
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Ile Lys Val Asn Arg Asp Ala Val Met Lys Ile Ala Val Ala Gly Asp
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Leu Phe

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Val Met Lys Ile Ala Val Ala Gly Asp Leu Phe Gln Pro Glu Arg Gly
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Ser Gly Phe Ala Phe Tyr Ser Leu Asp Tyr Met Arg Thr Pro Leu
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Tyr Met Arg Thr Pro Leu Asp Val Gly Thr Glu Ser
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Val Leu Phe Ala Leu Trp Ala Pro Asp Leu Arg Ala Val Pro Leu
1 5 10 15

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Glu Ala Thr Leu Glu Val Asp Gly Thr Arg Gly Gln Ser
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His Leu

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His Leu Arg Ser Pro Val Leu Thr Phe Ala Gly Gly Leu Pro Asp Val

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<213> Homo sapiens

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Leu Glu Val Asn Arg Arg Leu Leu Asp Leu Asp Glu Ala Ala Tyr Lys
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His Ser Asp Ile Thr
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Phe Tyr Arg Gly Cys Met Thr Leu Glu Val Asn Arg Arg Leu Leu Asp
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Leu Asp Glu Ala
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Ala Tyr Lys His Ser Asp Ile Thr Ala His Ser Cys Pro Pro Val Glu
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Pro Ala Ala Ala

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<213> Homo sapiens

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Pro Arg Tyr Leu Asp Cys Ile Asn Lys Tyr Gly Ser Pro Tyr Thr Lys

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Asn Ser Gly Phe Ala Thr Cys Val Gln Asn Leu Pro Asp Gln Cys Thr

20 25 30

Pro Asn Pro Cys Asp Arg Lys Gly Thr Gln Ala Cys Gln Asp Leu Met

35 40 45

Gly Asn Phe Phe Cys Leu Cys Lys Ala Gly Trp Gly Gly Arg Leu Cys

50 55 60

Asp Lys Asp Val Asn Glu Cys Ser Gln Glu Asn Gly Gly Cys Leu Gln

65 70 75 80

Ile Cys His Asn Lys Pro Gly Ser Phe His Cys Ser Cys His Ser Gly

85 90 95

Phe Glu Leu Ser Ser Asp Gly Arg Thr Cys Gln Asp Ile Asp Glu Cys
100 105 110

Ala Asp Ser Glu Ala Cys Gly Glu Ala Arg Cys Lys Asn Leu Pro Gly
115 120 125

Ser Tyr Ser Cys Leu Cys Asp Glu Gly Phe Ala Tyr Ser Ser Gln Glu
130 135 140

Lys Ala Cys Arg Asp Val Asp Glu Cys Leu Gln Gly Arg Cys Glu Gln
145 150 155 160

Val Cys Val Asn Ser Pro Gly Ser Tyr Thr Cys His Cys Asp Gly Arg
165 170 175

Gly Gly Leu Lys Leu Ser Gln Asp Met Asp Thr Cys Glu Asp Ile Leu
180 185 190

Pro Cys Val Pro Phe Ser Val Ala Lys Ser Val Lys Ser Leu Tyr Leu
195 200 205

Gly Arg Met Phe Ser Gly Thr Pro Val Ile Arg Leu Arg Phe Lys Arg
210 215 220

Leu Gln Pro
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Thr Arg Leu Val Ala Glu Phe Asp Phe Arg Thr Phe Asp Pro Glu Gly
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Ile Leu Leu Phe Ala Gly Gly His Gln Asp Ser Thr Trp Ile Val Leu
 20 25 30

Ala Leu Arg Ala Gly Arg Leu Glu Leu Gln Leu Arg Tyr Asn Gly Val
 35 40 45

Gly Arg Val Thr Ser Ser Gly Pro Val Ile Asn His Gly Met Trp Gln
 50 55 60

Thr Ile Ser Val Glu Glu Leu Ala Arg Asn Leu Val Ile Lys Val Asn
65 70 75 80

Arg Asp Ala Val Met Lys Ile Ala Val Ala Gly Asp Leu Phe Gln Pro
 85 90 95

Glu Arg Gly Leu Tyr His Leu Asn Leu Thr Val Gly Gly Ile Pro Phe
 100 105 110

His Glu Lys Asp Leu Val Gln Pro Ile Asn Pro Arg Leu Asp Gly Cys
 115 120 125

Met Arg Ser Trp Asn Trp Leu
130 135

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Ser Thr Trp Glu Val Glu Val Val Ala His Ile Arg Pro Ala Ala Asp
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Thr Gly Val Leu Phe Ala Leu Trp Ala Pro Asp Leu Arg Ala Val Pro
20 25 30

Leu Ser Val Ala Leu Val Asp Tyr His Ser Thr Lys Lys Leu Lys Lys
35 40 45

Gln Leu Val Val Leu Ala Val Glu His Thr Ala Leu Ala Leu Met Glu
50 55 60

Ile Lys Val Cys Asp Gly Gln Glu His Val Val Thr Val Ser Leu Arg
65 70 75 80

Asp Gly Glu Ala Thr Leu Glu Val Asp Gly Thr Arg Gly Gln Ser Glu
85 90 95

Val Ser Ala Ala Gln Leu Gln Glu Arg Leu Ala Val Leu Glu Arg His

100 105 110

Leu Arg Ser Pro Val Leu Thr Phe Ala Gly Gly Leu Pro Asp Val Pro
115 120 125

Val Thr Ser Ala Pro Val Thr Ala Phe Tyr Arg Gly Cys Met Thr Leu
130 135 140

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tccgttcagc cagttccagc t 21

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Met Glu Phe Gly Leu Thr Trp Val Phe Leu Val Ala Leu Leu Arg Gly

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gtc cag tgt cag gtg cag ctg gtg gag tct ggg gga ggc gtg gtc cag 96

Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln

20 25 30

cct ggg agg tcc ctg aga ctc tcc tgt gca gcg tct gga ttc acc ttc 144

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe

35 40 45

agt agc tat ggc atg cac tgg gtc cgc cag gct cca ggc aag ggg ctg 192

Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu

50 55 60

gag tgg gtg gca gtt ata tgg tat gat gga agt aat aaa tac tat gca 240

Glu Trp Val Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala

gac tcc gtg aag ggg cga ttc acc atc tcc aga gac aat tcc aag aac 288
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

tat ttc tgt gcg aga gaa ggg ttt tat tac gat att ttg act gct tat 384
Tyr Phe Cys Ala Arg Glu Gly Phe Tyr Tyr Asp Ile Leu Thr Ala Tyr
115 120 125

tcc tca 438
Ser Ser
145

Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Xaa Asn Ser Leu Arg Ala Glu Asp Thr Ala Met
100 105 110

Tyr Phe Cys Ala Arg Glu Gly Phe Tyr Tyr Asp Ile Leu Thr Ala Tyr
115 120 125

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Ser Ser
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 tcc agg ggt gaa att gtg ctg act cag tct cca gac ttg cag tct gtg 96
 Ser Arg Gly Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val
 20 25 30
 act cca aag gag aag gtc acc atc acc tgc cgg gcc agt cag agc att 144
 Thr Pro Lys Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile
 35 40 45
 ggt agt agc tta cac tgg tac cag cag aaa cca gat cag tct cca aag 192

Gly Ser Ser Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys
50 55 60

ctc ctc atc aag tat gct tcc cag tcc ttc tca ggg gtc ccc tcg agg 240
Leu Leu Ile Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg
65 70 75 80

ttc agt ggc agt gga tct ggg aca gat ttc acc ctc acc atc aat agc 288
Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser
85 90 95

ctg gaa gct gaa gat gct gca gcg tat tac tgt cat cag agt agt agt 336
Leu Glu Ala Glu Asp Ala Ala Ala Tyr Tyr Cys His Gln Ser Ser Ser
100 105 110

tta ccg tac act ttt ggc cag ggg acc aag ctg gag atc aaa 378
Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
115 120 125

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20 25 30

Thr Pro Lys Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile
35 40 45

Gly Ser Ser Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys
50 55 60

Leu Leu Ile Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg
65 70 75 80

Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser
85 90 95

Leu Glu Ala Glu Asp Ala Ala Ala Tyr Tyr Cys His Gln Ser Ser Ser
100 105 110

Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
115 120 125

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Ser Tyr Gly Met His Trp
1 5

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Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala

1 5 10

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Arg Ala Gln Ser Ile Gly Ser Ser Leu His

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Arg Ala Ser Gln Ser Ile Gly Ser Ser Leu His

1 5 10

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Tyr Ala Ser Gln Ser Phe Ser

1 5

<210> 34

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His Gln Ser Ser Ser Leu Pro

1 5

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21

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Ile Ala Val Ala Gly Asp Leu Phe Gln Pro Glu Arg

1 5 10

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<400> 38

Ala Val Pro Leu Ser Val Ala Leu Val Asp Tyr His Ser Thr Lys

1 5 10 15